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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,253	09/13/2000	Francis Anthony Darmann	BSW.007	3080

7590

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EXAMINER

PATEL, ISHWARBHAI B

ART UNIT

PAPER NUMBER

2827

DATE MAILED: 04/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/661,253

Applicant(s)

DARMANN ET AL.

Examiner

Ishwar (I. B.) Patel

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 7-9 and 11-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-9 and 11-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 31 December 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The corrected or substitute drawings were received on December 31, 2002.  
These drawings are approved.

### *Specification*

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1,2, 9, 11, 12 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Scudiere et al., US Patent No. 5,987,342, hereafter, Scudiere.

Regarding claims 1 and 11 Scudiere discloses a composite superconducting tape comprising a multiplicity of constituent superconducting tape stacked parallel to one another with major faces in contact, wherein at least some of the constituent

superconducting tapes have widths not greater than half a width of the composite superconducting tape and laid edge-to-edge with each other, the superconducting tape including at least one tape bridging the stacks (superconducting tape 12 with laminate 14 and 16, see figure 4, line 39-42).

Regarding claims 2 and 12, the composite structure of Scudiere further discloses the constituting superconducting tape form two or more stacks with aligned zones there between which contain no superconducting material, see figure 4.

Regarding claims 9 and 18, Scudiere further discloses the constituent superconducting tapes are all powder-in-tube superconducting tape, column 4, line 22-34.

5. Claims 3, 7, 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scudiere et al., US Patent No. 5,987,342, hereafter, Scudiere as applied to claims 1,2,9,11,12 and 18 above.

Regarding claims 3 and 13, the applicant is claiming two stacks with the simple fraction of half. Though, Scudiere discloses three stacks instead two stacks, number of stack will depend upon the required width of the composite tape and the width of the constituent tapes. Further, using two stacks instead of three stacks does not produce any unexpected results.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the composite structure of Scudiere with two stacks in order to have the required composite width with the relative width of the constituent tapes.

Regarding claims 7 and 16, though Scudiere does not disclose unequal respective strength of the two full width tape, as further disclosed by Scudiere, the bridging tapes should be strong enough to avoid plastic deformation of the composite even at higher stress level, column 4, line 49-61, and strength can be selected based on the stresses experienced by the tape with higher / stronger tape where the stress experienced is more.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the composite structure of Scudiere with the bridging tape with the unequal strength in order to protect the conductor from plastic deformation against the higher stress.

6. Claims 4-5, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scudiere et al., US Patent No. 5,987,342, hereafter, Scudiere, as applied to claims 1-3,7-9,11-13, 16 and 18 above, and further in view of Leriche et al., US Patent No. 6,272,731, hereafter Leriche.

Regarding claims 4 and 14, the applicant is claiming the bridging tape produced from silver or silver alloy. Though, Scudiere, discloses a tape preferably made of

stainless steel, further discloses that other tapes such as copper, copper alloy or superalloy tapes are also suitable, column 4, line 34-36. Furthermore, Leriche discloses silver base envelope 7, see Leriche, figure 2, column 3, line 30-40.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the composite structure of Scudiere with silver or silver alloy tape, as taught by Leriche, in order to have the composite with desired characteristic with acceptable cost.

Further, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ.

Regarding claim 5 and 15, the composite structure of Scudiere further discloses two full width metal bridging tapes, laminates 14 and 16.

7. Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scudiere et al., US Patent No. 5,987,342, hereafter, Scudiere, as applied to claims 1-5, 7,9, and 11-16 above, and further in view of Riley, Jr. et al., US Patent No. 6,370,405, hereafter, Riley.

Regarding claims 8 and 17, the applicant is claiming the diffusion-bonded tape. Though, Scudiere does not disclose diffusion bonding, such diffusion bonding, as disclosed by Riley, is known in the art, Riley, column 16, line 15-32, and can be used

depending upon specific structural requirements and having desired thermal and electrical conductivity.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the composite structure of Scudiere with diffusing bonding, as taught by Riley, in order to have the desired structure with required electrical and thermal conductivity.

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1 and 11 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Duperray et al., discloses a powder in tube superconductive multifilament strand with silver based matrix.

Saga et al., discloses superconducting wire with filaments 2 covered by silver 4, which in turn coated with silver alloy 3, in a stabilizing matrix 5 of silver or silver alloy, see figure 1C.

Fujikami et al., discloses a superconducting wire with diffusion bonded strand, see example 3, column 8.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ishwar (I. B.) Patel whose telephone number is (703) 305 2617. The examiner can normally be reached on M-F (8:30 - 5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L Talbott can be reached on (703) 305 9883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3431 for regular communications and (703) 305 7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

ibp  
March 27, 2003

  
KAMAND CUNEO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800